

**STATUS OF THE CLAIMS**

1-66. (cancelled).

67. (withdrawn) A method of treating a staphylococcal infection in a human subject, comprising:  
a) providing a subject comprising a staphylococcal infection, wherein said subject does not harbor a catheter or prosthetic device; and b) administering to said subject a recombinantly produced lysostaphin in a dose of 0.16 to 5.0 mg/kg/day.

68. (withdrawn) The method of Claim 67, wherein said staphylococcal infection does not comprise infection of an organ selected from the group consisting of heart, blood, kidney, lung, bone and meninges.

69. (withdrawn) The method of Claim 67, comprising administering to said subject a recombinantly produced lysostaphin in a dose of 0.16 to 2.5 mg/kg/day.

70. (withdrawn) The method of Claim 67, wherein said recombinantly produced lysostaphin is administered via intravenous administration.

71. (withdrawn) The method of Claim 67, wherein said recombinantly produced lysostaphin is administered via subcutaneous injection.

72. (withdrawn) The method of Claim 67, wherein said infection comprises greater than 10<sup>5</sup> viable bacterial cells.

73. (withdrawn) The method of Claim 67, wherein said infection if left untreated possesses the ability to kill un-treated subjects within 48 hours.

74. (withdrawn) The method of Claim 67, wherein said infection if left untreated possesses the ability to kill un-treated subjects within 24 hours.

75. (withdrawn) The method of Claim 67, wherein said dose is administered in multiple doses.

76. (withdrawn) The method of Claim 67, further comprising administering an antimicrobial agent selected from the group consisting of rifamycin, a glycopeptides and combinations thereof.

77. (withdrawn) The method of Claim 76, wherein said antimicrobial agent is administered on a day subsequent to administration of said recombinantly produced lysostaphin.

78. (withdrawn) The method of Claim 67, wherein said method eliminates said infection in said subject.

79. (currently amended) A method of treating a staphylococcal infection of an organ in a human subject, comprising:

a) providing a subject comprising a staphylococcal infection, wherein said infection comprises infection of an organ; and

b) administering to said subject a recombinantly produced lysostaphin in a dose of 3-25 ~~5 to 20~~ mg/kg/day, wherein said administering results in a 3-fold or greater reduction of staphylococci present in said subject.

80. (currently amended) The method of Claim 79, wherein said organ is selected from the group consisting of heart and, ~~blood, kidney, lung, bone and meninges.~~

81. (previously presented) The method of Claim 79, wherein said subject harbors a catheter or prosthetic device.

82. (previously presented) The method of Claim 79, comprising administering to said subject a recombinantly produced lysostaphin in a dose of 15 mg/kg/day.

83. (previously presented) The method of Claim 79, wherein said recombinantly produced lysostaphin is administered via intravenous administration.

84. (previously presented) The method of Claim 79, wherein said recombinantly produced lysostaphin is administered via subcutaneous injection.

85. (cancelled)

86. (previously presented) The method of Claim 79, wherein said staphylococcal infection comprises methicillin resistant *Staphylococcus aureus* (MRSA).

87. (previously presented) The method of Claim 79, wherein said infection if left untreated possesses the ability to kill un-treated subjects within 48 hours.

88. (previously presented) The method of Claim 79, wherein said dose is administered in multiple doses.

89. (previously presented) The method of Claim 88, wherein said multiple doses comprise three separate and equal administrations.

90-91. (cancelled)

92. (previously presented) The method of Claim 79, wherein said method sterilizes heart valve vegetations within said subject.

93. (previously presented) The method of Claim 79, wherein said method eliminates said infection in said subject.

94. (previously presented) A method of treating an established staphylococcal infection in a human subject, comprising:

a) providing a subject with endocarditis; and

b) administering to said subject a recombinantly produced lysostaphin in a dose of 15 mg/kg/day.